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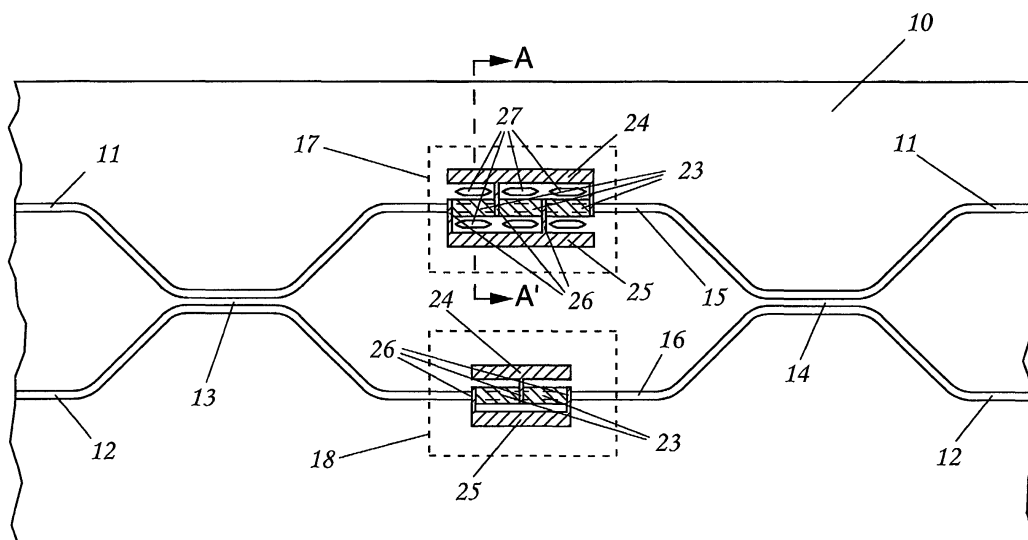
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(54) **Integrated optical Mach Zehnder structures**

(57) An integrated optical Mach Zehnder structure has an optical path length modifying heater (phase-shifter) (23) associated with a portion of the length of each interference arm, (15,16) of the Mach Zehnder. The portion of the length of the interference arm associated with one of the heaters is flanked with trenches (27) that provide that portion with a temperature coefficient of birefringence different from that of the corresponding por-

tion of the other interference arm. The invention is applicable not only to stand-alone Mach Zehnders, but also to more complex Mach Zehnder structures having a series combination of two or more component Mach Zehnders that are close coupled by having the two outputs of one component Mach Zehnder of the complex structure constitute the two inputs of the next component Mach Zehnder of the complex structure.



*Fig. 1.*



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# EUROPEAN SEARCH REPORT

Application Number  
EP 00 30 1124

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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 16 December 2003	Examiner Ammerlahn, D
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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
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